

PART III.—QUARTERLY REPORT ON THE PROGRESS  
OF PSYCHOLOGICAL MEDICINE.

*French Psychological Literature.*

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*Cretins and Cagots*.—M. Auzouy, the superintendent of the asylum at Pau, gives a full account of these two unfortunate classes of people. In comparing the frequency of cretinism in the Pyrenees with that in

other infected districts he quotes the statement of the *Gazette de Savoie*, that the number of goitrous individuals in the Alps of Savoy amounts to 12,000 in a population of about 600,000. Supposing then that one sixth or 2,000 of the goitrons are cretins he concludes that the proportion is one cretin to 300 of the population. The proportion in the valleys of the Pyrenees he calculates as 400 in a population of 500,000, or one cretin in 1,250 inhabitants. In spite, however, of this comparatively favourable view the condition of the Pyrenean valleys is bad enough to deserve more attention than it receives from either private or state philanthropy. The measures proposed by the author are :—

1. The adoption of suitable treatment for all cretins who are curable or susceptible of amelioration.
2. The admission into asylums of all those who vegetate miserably among their relatives, and who usually perish there prematurely of want and marasmus.
3. Transplantation (to localities which are elevated, well aired, and exposed to the sun) of cretins or cretinous individual, who reside in confined, unhealthy valleys.
4. The construction on commural lands, in good situations, of simple dwellings of good hygienic construction, where cretins and their families might live without being inconveniently removed from their previous abode. The attempt to cure must always be less successful than the attempt to prevent, and the author consequently calls on the administration to step in and aid in that more important work. "The opening of new roads, the reclaiming of uncultivated hill lands in good situations, the carrying on of public improvements in the cretinous valleys, would be of immense use in setting a civilizing current in motion, and increasing the well-being of the population. Without denying the importance of the presence of iodine in the water as a cause of goitre, we have the conviction," continues the author, "that the majority of goitrous persons would be more improved by a good daily meal of meat and wine than by the absorption of an iodized preparation."

The *cagots*, though frequently named along with cretins, are so altogether different from them that they have scarcely any claim to the special attention of the medical profession. Their condition is, nevertheless, one which must greatly interest the psychological pathologist, as it presents one of the best examples of the action of moral causes in causing, or at least contributing to produce degeneracy of race.

For their origin we are referred back to the commencement of the fifth century, when the Goths invaded the neighbouring portions of Gaul and Iberia, and succeeded in establishing themselves on both sides of the Pyrenees. During about a century these conquerors ruled the land which they had subdued; but they were in their turn overcome by Clovis, and their broken remnants took refuge among the Pyrenean valleys. Their descendants have continued to inhabit these secluded retreats, broken in spirit, and during long centuries despised by the neighbouring races. Their name of *Cagot*,

said to be derived from Can Goth—*Chien de Goth*—indicates the estimation in which they have been held. So deep was this contempt at one time carried, that they were only admitted to the churches by a door kept specially for their use; they were sprinkled from a special font, and a ditch separated their graves from those of other men. Since the revolution of 1789, these rigours have necessarily abated, but the Cagots still remain a degraded race, exhibiting no sense of personal dignity. “They still submit to the obligation to separate their habitations by a stream of water from those of different race, and to render them the most humiliating service. They mingle neither in their joys nor sorrows, and they do not resent the imputation of being unwholesome, noxious, and repulsive. Marriage beyond their own caste is a thing almost unknown.” M. E. Cordier received the following story from an old man of Ayzac, near Argelès. “A young man was in love with a maiden, who returned his affection. She was beautiful and virtuous, and he unceasingly implored her to marry him. The girl refused, saying, ‘Ah! if you only knew, you would ask me no more.’ At last he was one day so importunate that she said, ‘Here is an apple; we will divide it in two; you take one half and keep it under your arm-pit during the night. I shall do likewise with the other half. I will bring mine to you to-morrow, and you will bring me yours.’ The next day the young man brought his half apple, which was perfectly sound. The young girl mournfully showed him the half which had been kept under her arm. It was completely rotten. The poor child was a Cagote.” Such stories as this tell in the most graphic manner the feeling with which these unfortunate people are regarded. When the cholera prevailed in the district, the Cagots were accused of having attracted or introduced it. Hailstorms, the oidium, distempers, and atmospheric pestilences, are usually attributed to them. According to the ancient *For* of Bearn, seven Cagot witnesses were required to countervail the evidence of one ordinary person. They had to perform all sorts of statute labour, but were not permitted to carry arms, nor to choose their trade. Those of weaver, cobbler, cooper, wood cutter, and carpenter, were almost exclusively reserved for them. They were obliged to wear, as a distinctive mark on their clothes, the claw of a goose or a duck.

There is still much of the feeling which is illustrated in these laws, prevalent in these districts.

In external configuration there is nothing in these people to denote their condition. They are well formed, and ordinarily intelligent looking. Indeed, with the exception of a peculiarity in the formation of the ear from which the most highly civilised races are not quite free, there is nothing which can account for their condition, except the law, which seems to hold good everywhere that a dominant race always tries to keep down an inferior one until the inferior gains strength enough to assert its equality; and in this case the inferior race has been too weak numerically to make head against the adverse circumstances in which it has been placed.

*Weight of the Body in relation to Insanity.*—M. Laurent, of Marseilles, criticises favourably Professor Lombroso's views on this question. According to the latter, the weight of the body affords a valuable aid in diagnosis and prognosis. In a case of suspected simulated mania, he considers that the circumstance—that the weight did not decrease—would be strong evidence in favour of the existence of imposture. And in cases when as regards mental symptoms there is an appearance of cure, there is good reason to fear a rapid relapse, if the recovery have not been accompanied by increase of bodily weight.

*Mustard Baths in the Treatment of Insanity.*—M. Laurent recommends the use of such baths of a strength sufficient to produce general rubefaction after immersion, for a period of half-an-hour to three quarters. "In general," he says, "in the maniacal forms, the tissues having been long in an irritated condition demand repose for the organ, but when the acute stage has passed, a stimulus sometimes aids the resolution of the evil. The renewed activity communicated to the brain favours its return to a normal condition." In melancholia he has not found the baths useful, and especially when there is the complication of stupor, he considers the wet sheet a more valuable remedy, and he is also in favour of the use of the seton in such cases. In "nervous" and hysterical insanity, he considers the effect of the mustard baths to be peculiarly satisfactory and attributes the recovery of several patients to their use. He also attributes the recovery of a case in the first stage of general paralysis to the same agent.

*The Abendberg and Guggenbuhl.*—M. Auzouy, who in his paper on cretins and cagots, had spoken in a laudatory manner of this institution and its director has revised his opinion, and after some apparent hesitation has come to the conclusion that M. Guggenbuhl was a quack, and the institution not philanthropic. He gives the subject lengthened consideration, and if there be any still requiring to be convinced of the truth they may with advantage refer to the paper.

*Acute Delirium resulting from Ascaris lumbricoides in the Œsophagus.*—The following interesting case is related by M. Laurent:—"A female, forty-eight years of age, following the trade of a grinder, was admitted to the Marseilles Asylum on the 24th of April, 1867. She was transferred from the department of Var. Very meagre information furnished in writing gave us to understand that a sister of the patient had died at the Asylum of Saint-Pierre. It was not ascertained that any other members of the family were insane. In the village where she lived she led a very respectable life. She was a widow and provided by her labour for the support of her two children. Menstruation had ceased. Towards the end of the winter she had manifested symptoms of mental derangement; but especially during the last six days the delirium had been very intense and the excitement extreme. She shouted, tore her clothes and refused food of every kind.

“When I saw the woman, I recognised an acute delirium of the most violent character. She had not slept during the night, she was continually in motion, rolling on the floor, breaking her furniture to pieces, and uttering a torrent of incoherent and unintelligible words. It was impossible to obtain any reply to the questions which I put. The face was very pale, the eyes much congested and the expression grimacing. Respiration appeared impeded and laboured. Ordered an ordinary prolonged bath with a stream of cold water on the head, refreshing drinks, and light food. The next day the physical and mental condition was the same. There had been no change since her admission to the asylum. It was impossible to get her to take anything. She refused even liquids. She was constipated.

“On the 28th April, in the afternoon, she was seized with vertigo. She was carried to bed. Her face was pale, the limbs very feeble, the countenance expressionless, the tongue dry, the saliva thick, white, and gathered about the corners of the mouth. The pulse is small, compressible 70 in the minute, and the skin dry. I could obtain no answers to questions. Constipation persists. Ordered—Sinapisms to the extremities, and enema with 30 grammes of sulphate of soda. The remedies were applied immediately. Deglutition is difficult, she vomits everything she gets, lemonade with Seltzer water, tisane with wine, beef tea, antispasmodic potion, she could swallow none of them. On the 29th she was comatose, obstinately constipated, and unable to swallow any food.

“On the 1st May at two in the morning the patient died.

“The autopsy was made twenty-six hours after death. I ascertained, along with M. Eyriès, *interne* in the asylum, signs of cerebral congestion. The membranes were extremely injected, and presented numerous vascular arborisations. The vessels were gorged with venous blood. There was no adhesion to the cortical substance. The several sections of the brain revealed a considerable amount of sanguineous punctation. The ventricles were filled with serum. The frontal part of the surface of the brain exhibited slight *ramollissement*. The heart was healthy, the lungs congested posteriorly. In withdrawing the thoracic organs, something was felt within the œsophagus, and on making an opening, we discovered a worm from 18 to 19 centimetres in length, and whose diameter at the middle, was about seven or eight millimetres. In colour it was darkish rose, and it tapered towards each extremities. This *ascaris lumbricoides* was alone and lifeless. Examination of the stomach and intestines revealed no more worms, and there was no alteration of the mucous membrane of the œsophagus. The large intestine was much distended by dry and hard fœces.

“There is no doubt that the predisposition was called into action by a very powerful exciting cause. The well-defined acute delirium was due to the presence in the œsophagus of the *ascaris lumbricoides*.

“In searching the records of the science for facts of this kind, I find that some have been noticed. They have only been recognized,

however, by the expulsion of one or more worms. As yet, we know of no characteristic sign which could indicate that a delirium resulted from the presence of worms in the œsophagus or in the stomach. It is, however, to be remarked that the form of mental derangement which has been observed, has always been a continuous and most violent excitement, followed by considerable debility.

“As regards the present case, a diagnosis of the helminthic affection was impossible. The information which had been obtained was too deficient to enlighten us as to the onset and the real cause of the mental affection. The patient herself was incapable of replying to our questions, or of making us aware of the sensations, which she might have felt about the back of the throat. The difficulty in swallowing is a characteristic symptom of acute delirium, and seems to depend on a convulsive condition of the pharynx and glottis. The different and numerous attempts made to obtain the ingestion of even liquid food were fruitless—only a result which we too frequently meet with, and which in such over-excited cases, it is, unfortunately, impossible to overcome. Usually the dysphagia disappears along with the nervous spasm, and it is prudent to avoid every violent measure which may abrade the digestive mucous membrane, and subsequently lead to dangerous revulsion, such as local inflammation, even of a gangrenous nature. In these circumstances, I consider that I proceeded as prudently as possible.

“This case furnishes an opportunity of insisting on the necessity which exists for such information as can be afforded by the relatives of patients. We asylum physicians are, unfortunately, only exceptionally applied to at the beginning of those affections, which lead to the sequestration of the insane in our establishments. We ought, therefore, to insist on the relatives and the family medical attendants, procuring for us the most circumstantial details of the evolution of the first symptoms, and of the causes of every kind which may have produced the morbid condition which is confided to our treatment.

“I do not wish to dissemble the difficulties which surround the diagnosis of conditions which really depend on the influence of intestinal worms, and it is not without interest to enquire carefully whether it be possible to throw some light upon this important point. As has just been said, I arrived at this conclusion while making research, that in cases where *ascaris lumbricoides* had penetrated to the stomach or œsophagus, and had produced morbid manifestations, there was observed a continuous and most violent excitement. This acute delirium made its appearance suddenly, and was accompanied by more or less limited convulsive phenomena. Esquirol, Ferrus, Frank, Vogel, Rolland, and Friedreich, noted this form in the cases which they record. In carefully examining, therefore, the conditions under which this manifests itself, it may, perhaps, be possible to attain to a diagnosis by the method of exclusion. I do not believe it necessary to enlarge on the characteristics of acute

delirium. The labours of MM. Brierre de Boismont, Calmeil, and Semelaigne, and the experience of the principal alienists have placed beyond doubt the existence of a special form which might be confounded with meningitis, hyper-stimulation of hysteria, or with mania, and which consists in an irritative congestion of the meninges and of the encephalon itself. The principal causes which have been recognised as producing this acute delirium, are mental exertion convulsive seizures, sunstroke, forced marches, alcoholic beverages, cerebral congestions, febrile diseases, and rheumatismal metastases. There is no mention of the migration of intestinal worms.

If we now inquire into the circumstances which favour the production of these parasites, we find hereditary predisposition, the lymphatic temperament, and sex. Women appear to be more subject to them than men. Eruvcilhier has, in the *Dictionnaire de Medecine et de Chirurgie Pratique*, especially insisted on the effects of incomplete assimilation of superabundant nutritive materials. The bad quality of the food ought, however, to be blamed not less than the quantity, as also atmosphere vitiated and unfit for promoting nutrition. If we add want of exercise, depression, disappointment, and generally all debilitating causes, one will have a concurrence of circumstances such as would powerfully contribute to the multiplication of intestinal worms. These causes have as their predominant result the vitiation of the nutritive fluid, and the production of anæmia, which is so powerful a cause of acute maniacal insanity. Thus one might suppose that the helminthic affection acted upon the nervous system in the same manner as deteriorators of the blood, profuse hæmorrhages, prolonged lactation, &c. The general symptoms have a considerable resemblance to those produced by anæmia and chloro-anæmia. But the analysis of facts does not permit us, in my opinion, to attribute solely to this cause—that is, to the vitiation of the blood,—the manifestation of maniacal excitement. There must always be a cause of at least considerable intensity in addition to this, so to speak, preparatory condition. I do not wish to exaggerate the pernicious effects of intestinal worms; and I am quite aware that the presence of worms in the intestines does not always produce appreciable symptoms; it is compatible with perfect health. But in cases sufficiently frequent it manifests itself by very variable phenomena. (Davaine, *Traité des Entozoaires*, p. 48). This author remarks that when the worms leave the intestines and reach other organs either by natural or accidental routes, they provoke new symptoms or lesions. Serious lesions are generally attributable to the migration of the *ascaris lumbricoides*. These phenomena take place in a sudden manner, and then it is that an analysis of the antecedent state draws attention to certain manifestations to which no regard had been paid, on account of their irregular appearance or unusual character.

I am inclined to think that this affection has been frequently misconstrued, and that symptoms which have been principally due to the



influence of these parasites, have been attributed to enteritis of a nervous character. The administration of anthelmintics would have set the question at rest in the most satisfactory manner, and without danger to the patient in cases where intestinal worms were not the cause of the intestinal disorder. Dr. Davaine insists strongly on the microscopic examination of the fæces in cases where worms are suspected; as the presence of ova may always be detected in the stools. I think that this means of diagnosis ought not to be neglected in cases of acute maniacal delirium preceded by gastric symptoms of some duration.

The case which has been the subject of this notice suggests still further for our consideration, that the disorders and serious lesions produced by worms pertain to an order of phenomena known as reflex. I need not enlarge on the explanation of these organic actions; numerous experiments show that they are phenomena produced by irritation of the nerves of the great sympathetic. This irritation is conveyed to the central organ. If this does not possess sufficient force to annihilate or neutralise the effect; if it is even prepared already by a morbid condition of some duration or by special predisposition, very grave symptoms supervene and most frequently lead to a fatal termination. The aggregate of these etiological conditions constitute a morbid condition which has received the name of sympathetic insanity. I need only at present refer to the works of MM. Loiseau and Azam, the remarkable discussion which took place in the *Société médico-psychologique*, the works of M. le docteur Morel, the papers of MM. Dumesnil and Auzouy in the *Archives cliniques* of mental and nervous diseases. While accepting the idea of sympathetic insanity, I must say that that category is more theoretical than practical; for it is extremely difficult by the examination of symptoms and without further information to distinguish at present a sympathetic insanity from one which is idiopathic. Treatment certainly could only gain by such a distinction, and our efforts should be directed to furnish marks which may aid us in the differential diagnosis.

“There is a question which occurred when ascertaining that the form of insanity produced by the presence of worms in the œsophagus is acute maniacal insanity or acute delirium, is the lesion of the œsophageal nerves capable of determining one form of delirium rather than another. The feeling of constriction, or whatever may result from the alteration of œsophageal branches which belong to the laryngeal plexus or to the thoracic portion of the great sympathetic; may it not have some special echo in the intracranial nervous system? And might it not happen that certain transitory manifestations of acute delirium might have as a cause a morbid sensation such as that to which I allude. I merely throw out the idea at present. It requires complementary facts.”

M. Laurent adds in a note a fact which he found among the records of the Asylum of Fains, narrated by his predecessor Renaudin. That



physician, it appears, had succeeded in cutting short, or rather suppressing a periodic acute mania supervening at the menstrual periods by the application of leeches in the neighbourhood of a varicose enlargement of the thyroid gland.

*Asylums for the Insane.*—Dr. le Menant des Chesnais discusses the attacks which have recently been made on the officials of asylums in France, and the suggestions which have been made for a reform in the law relating to their administration. He examines in detail the provisions of the present law, and arrives at the following conclusions:—"As regards inroads on individual liberty, it is unheard of that a superintendent of an asylum has ever been unfaithful to his trust, and the accusation consequently falls of itself. As regards the inefficiency of treatment and the mortality, our reply is as short as it is conclusive. We require in the first place the removal of the aged, the paralytics, the epileptics, the harmless idiots, &c., which impede everything that we can do, and the proportion of mortality will then be reduced to the same degree that the cures will be increased. The law has sufficiently provided for every case, it has been judiciously conceived, and if more is insisted on, only evil results will be obtained, and these will be in proportion to the new requirements. The cure is not to be obtained in a law itself, but in its proper administration with a due regard to prudence and vigilance. If abuses have occurred from non-observance of the law of 1838 so simple and easy to administer, the administration of a more severe law, being necessarily more difficult, would be so much the less efficacious as it would be less practicable." On the whole the author is satisfied that the present law in France is a wise one and only requires to be carefully administered.

*Case of Lypemania complicated with Spasms.*—Dr. Dufour, assistant physician at the Asylum of Armentières (Nord), relates the following case:—An unmarried female, 50 years of age, of a nervous temperament, and feeble constitution, was admitted to the Asylum of Dijon, in November, 1866. A niece was insane. Before her admission she was servant to a person in poor circumstances, who was unable to pay her any wages, whom she served from pure affection, and with whom she had to suffer many privations. Hitherto she had been moderately intelligent, and had received elementary education. She was always orderly in her conduct. Menstruation ceased long since. When eighteen years of age the menses were suppressed, and she then had a short lypemaniac attack, after which she was subject to hemicrania and nightmare. Her sister, from whom this information is obtained, does not appear to be very intelligent. She says further that for several months she has been liable to vomiting and pain in the epigastrium, which had been referred by several physicians to a cancerous alteration of the coats of the stomach. She was at the same time attacked with an affection of the scalp, which, however, had benefited much by emollient applications. In the latter part of September she was seized with erysipelas of the face, which extended

to the neck and scalp, and produced considerable swelling of these parts. On the first of October she was improved, and she rose to look at herself in the mirror, her face being at that time in the condition usual in persons in the last stage of erysipelas; but she was so struck with the appearance, that she began immediately to cry that she was a monster, that she felt something was going wrong in her head, and that she should become mad. Since then she had been odd—melancholy, saying that she was affected with an incurable disease, thought that any treatment would be useless to her, ate little, scarcely slept, and was almost continually oppressed by depressing ideas.

She was in the asylum till the 6th of February following, when she died. While an inmate she had eaten little, generally refusing what was given to her, from fear that it would injure her, and frequently vomiting what she was prevailed on to take. Everything that occurred she interpreted by the light of her depressed emotions. She was generally constipated. She became much emaciated before death, and towards the end became comatose. She also suffered while in the asylum from contractions of the anterior muscles of the trunk.

Autopsy forty hours after death. No cadaveric rigidity. Phlyctenæ and eschars on the toes. Bones of the skull, thin membranes of brain distended with serum, and easy separable. The brain appeared as if enveloped in gelatinous substance, but this condition disappeared when all the serum was evacuated. The ventricles were full of serum; the two hemispheres equal. The whole encephalon was soft and infiltrated with serum. The stomach was contracted, and the coats thickened; the mucous membrane of a livid red, and its folds very prominent. The membrane was not softened, but presented points of about two millimetres square in size, black and gangrenous-looking, surrounded by a grey circle of about one millimetre in depth. There were, besides, some five or six slight erosions about the size of a lentil. The large intestine was filled with small scybalous masses from the cæcum to the anus.

In considering the relation between the symptoms and the *post mortem* appearances, the author attributes the coma to the large effusion of the serum within the cranium. He does not, however, think that the previous symptoms are to be referred to the same cause, but rather that the effusion was the final result of anæmia, resulting chiefly from inanition. The insanity he attributes especially to debility, acting on a predisposed nervous system, and attributes the onset of the last attack to the meningitic congestion to which erysipelatous patients are so liable. Both the appreciable cerebral lesions and the gastric condition he attributes to deficient nutrition, which latterly had been more the result than the cause of the insanity.

*The Life and Labours of Galileo.*—M. Brierre de Boismont gives a short resumé and criticism of the late M. Parchappe's treatise on this subject. The tendency of the essay may perhaps be most easily under

stood by the following quotation: "Galileo," says M. Brierre, "was morally a representative of his age: deficient in native firmness of character, as Scarpa has clearly shown, conceited, but without real personal dignity, he combatted the malignant baseness of his enemies by subterfuge and pusillanimity. Occasionally, however, the consciousness of his own worth made him forget his artifices of language and genuflexions before the great; and his tirades obtained additional force from the irony and disdain which he showed for his detractors. The arguments which he borrowed from the Holy Scripture, and which his subtlety made him believe unassailable, were the very weapons used by his enemies to overthrow him. And it was not for want of warning that he committed this serious error. Cardinal Barberini, at that time his friend, said, 'We are not concerned with taking up the side of Ptolemy or Copernicus; but above all things keep within those limits which should circumscribe physics and astronomy.' Monseignor Dini wrote to him: 'The theologians will admit the mathematical discussion as relating to a simple hypothesis, and as they say was the manner of Copernicus. That liberty will be granted provided that the sacristy be not entered.' Paolo Scarpi also pointed out the rock which caused his destruction. In the opinion of Parchappe, it was a proof of extreme confidence in himself and his friends, among whom were a future Pope and a Medicis, to imagine himself able to contend against Rome; but it was no proof of perspicuity. What was persecuted in Galileo—what was attempted to be stifled by terror, was not so much an astronomical hypothesis, as the liberty of scientific investigation; and what Galileo has especially upheld when defending Copernicus and himself, is the right of science to develop itself in all the plenitude of its independence."

*Insanity in Switzerland.*—In a series of elaborate papers on this subject, M. Lunier has collected nearly all the official information at present obtainable in regard to it. He gives a sketch of the laws affecting the insane, the provision which has been made for their care, and the circumstances which appear to him to influence their numbers and condition. It is impossible to do more than indicate a few of the more definite conclusions at which he has arrived. In regard to the influence of the configuration and constitution of the soil he remarks. 1. That in the mountainous regions the idiots and cretins are more numerous than the other insane in the proportion of 159 to 93. 2. That in the plains the number or insane (*fous*) is about the same as that of cretins and idiots. 3. That insanity is less frequent, and cretinism on the contrary more frequent on the mountains than on the plains. 4. That mental affections (insanity, idiotcy, and cretinism) are more common on the mountains than the plains, the proportion being 252 to 214, or very nearly 7 to 6. A memoir by Schneider, on the statistics of insanity in the canton of Berne, contains some observations worthy of consideration. There are in the canton three very distinct geological formations—tertiary, Jurassic limestone, and "alpine."

In the region where tertiary formations predominate, the proportion of idiots and cretins in the population was one in 271, or 3·70 per cent., and of other insane one in 825, or 1·21 per cent. In the Jurassic limestone region, the idiots and cretins were one in 614, or 1·62 per cent., other insane only one in 2,098 or ·46 per cent. In the alpine region the cretins were one in 361, or 2·76 per cent., other insane only one in 742, or 1·33 per cent. In all the districts the population is German speaking, principally engaged in agriculture, Protestant in religion, except in the Jurassic district, where it is Catholic. Thus there was, at the period between 1836 and 1839, when the statistics were taken, the least proportion of insanity in the region distinguished by the presence of Jurassic limestone, and the greatest proportion in the deep alpine valleys; and it is in the vast plateau situated below the Alps and the Jura, where tertiary formations prevail, that the greatest amount of cretinism is to be found. It is also in the last-mentioned districts that, as might be expected, the largest proportion of deaf mutes is found, being one in every 116 inhabitants. We give these calculations, as M. Lunier apparently attaches some importance to them; but the connection between the geological formation and the prevalence of insanity which is indicated, appears to be more apparent than real.

The number of the insane in Switzerland, who are confined in asylums, is small in comparison with many countries. In 1867 there were in all the special asylums about 2,100 insane, and to this may be added 400 or 500 insane, including idiots and cretins, scattered among the mixed *maisons de santé*, hospitals and poor houses. This taken in connection with the total number of insane, 7,174, gives the proportion of a little over one in three in confinement. In investigating this distribution more in detail it is found that in the several cantons the proportion in confinement is almost in direct ratio to the wealth and density of the population. In France the proportion in confinement is one in every 1,100 inhabitants, and in every 2·46 insane, including cretins and idiots. In Belgium the number of insane secluded is one in 1·46.

The detailed descriptions of the different establishments given by M. Lunier, do not admit of abbreviation; but the general comparative review which he gives is important, especially as coming from one of such extensive knowledge as the French Inspector General.

"Of the ten establishments," he writes, "the three oldest, Champ-de-l'air, Königsfelden, and Zurich, have been admitted to be defective and insufficient, and are shortly to be replaced by magnificent asylums at great expense, away from the towns, and surrounded by extensive grounds. A fourth, les Vernets, although founded in 1838, was established in a manner so satisfactory that it still nearly fulfills the requirements of the canton of Geneva, and the progress of psychiatric science. The enlargement which was effected in 1857, in the female division, and which is to be similarly carried out in the section

for men indicate that the canton has no intention of reconstructing its asylum. Three others, Münsterlingen, Bâle, and Saint-Pirminsberg, leave much to be desired. Münsterlingen and Saint-Pirminsberg, although admirably situated and considerably improved during late years, exhibit in their material constitution and the distribution of their sections for classification too serious deficiencies and imperfections, to be considered as good establishments. The two sections of the hospital at Bâle are not worthy of that ancient and rich city, and it is probable that it will not delay long in establishing beyond its walls a real asylum for its insane. The three last, Préfargier, La Waldau, and La Rosegg, which have been more recently erected, are on the other hand good establishments, though one cannot speak favourably of all their details. Préfargier, however, in spite of certain alterations which have been made on the original plan, may still be cited as a model of a small establishment adapted for both sexes. La Waldau pleases me less. The aspect is too dull, and the agglomeration of buildings suitable for a population of a hundred or a hundred and fifty patients is much too small for an asylum already requiring to afford accommodation for two hundred and fifty. The plan of La Rosegg does not appear to me to be a model for imitation. The distribution of some of its sections for classification is contrary to the necessities of psychiatric science.

“I have not been able to obtain altogether satisfactory information regarding the dietary of the insane, except for five of the asylums which I visited, le Champ-de-l’air, Königsfelden, Münsterlingen, Saint-Pirminsberg, and La Rosegg. In these establishments the patients receive weekly of uncooked butcher meat :—

	Men.	Women.
Königsfelden ...	1750 grammes	1750 grammes
Münsterlingen ...	1750	1450
Champ de-l’air ...	1650	1650
Saint-Pirminsberg ...	1500	1500
Rosegg ...	1500	1080

“It is only during the last three years that the patients at Königsfelden have had 250 grammes of butcher meat daily. Previous to that time they were only allowed the same quantity three times a week. At Saint-Pirminsberg butcher meat is only given three times a week, 250 grammes for dinner and the same for supper. At the Rosegg, a Catholic district, the patients get no meat on Friday. At Champ-de-l’air, and at Münsterlingen they have it every day.”

The proportion of recoveries in relation to the admissions and of death in proportion to the mean population is given in the table on the next page.

*Number and proportion of Recoveries and of Deaths in the Swiss Asylums.*

CANTONS.	ASYLUMS.	Recoveries.	Admissions.	Proportion per cent.	Deaths.	No. of years multiplied by mean number resident.	Proportion per cent.	YEARS.
Argovie.....	Königsfelden ...	31	82	37.8	23	266	8.6	1864-66
Bâle-Ville ...	Bâle .....	247	726	34	110	857	12.8	{ 1843-60 1863-65
Berne .....	La Waldau .....	98	220	44.8	62	868	7.1	1864-66
Saint Gall ...	St. Pirminsberg	68	226	30	29	366	7.9	1865-66
Geneva .....	Les Vernets.....	486	1367	35.5	371	2709	13.6	1838-66
Neuchatel ...	Préfarquier .....	115	285	40	32	385.5	8.3	1864-66
Soleare .....	La Rosegg .....	70	276	25.3	68	690	9.8	1862-66
Thurgovia ...	Münsterlingen	213	626	34	124	846	14.6	{ 1851-54 1864-66
Vaud .....	Champ-de-l'air	95	373	25.4	94	902	10.4	1861-66
Zurich .....	Zurich .....	30	109	27.4	2	21	9.5	1860
	Totals .....	1453	4290	—	915	7910.5	—	
	Mean .....	—	—	33.9	—	—	11.57	

*Combination of Digitalis and Opium in the Treatment of Insanity*—  
 MM. Dumesnil and Lailler strongly recommend the union of these drugs, especially in the treatment of mental excitement. They hold that the Tincture of Digitalis cannot be given *alone* in a dose of one gramme for several days, without frequently producing signs of intoxication, which may be the cause of serious results. "On the 17th of May last" (1867), say the writers, "we had in the asylum sixteen patients who were taking one gramme of Tincture of Digitalis daily. They consisted of a certain number of epileptics and some patients labouring under maniacal excitement. The tincture employed was prepared according to the old Codex of 1837. At the date we have mentioned, the supply of this tincture being exhausted, we prescribed similar doses of the tincture prepared according to the new Codex, and with Digitalis recently sent to us by our druggist. The next day one of the patients under treatment with the Digitalis suffered from nausea and vertigo; the pulse became slow and intermittent, shewing the signs of intolerance produced by the medicine. The use of it was discontinued and the symptoms disappeared. All the patients subjected to the same treatment exhibited the same symptoms to a greater or less degree, according to their differences of susceptibility. We had no very serious consequences to deplore; but one young epileptic

was so seriously affected as to oblige us to have prompt recourse to stimulant remedies, both externally and internally, after which, every thing went right. A short time before these events one of us analysed in the *Annales Medico-psychologiques* (May, 1867) a memoir extracted from the Journal of Mental Science, and wrote that in England the Tincture of Digitalis was given in doses of from one to two grammes, three or four times a day, in cases of maniacal excitement. What we had seen in our own experience showed evidently that the dose prescribed by our neighbours across the channel could not always be reached with impunity, and we take advantage of this opportunity to advise those of our *confreres* who have read our analysis, and would prescribe the Tincture of Digitalis to their patients, not to go much above the dose of a single gramme, and when they wish to go above it, to associate with the tincture some agent which may favour a tolerance of it. Opium indeed is the substance to be preferred; for in regard to it there is no antagonism between the two medicines, as there is in the case of belladonna and opium. We find in the effects produced by opium combined with digitalis both the action of the one and the action of the other, neither is there any incompatibility from a chemical point of view.

“We believe that the association of these two remedies, in the greater number of cases of excitement in the insane, obtains very advantageous and almost constant results, which have been rarely obtained from digitalis, opium, or bromide of potassium given separately. This note in no way invalidates the important labours of Drs. Williams, Crichton, Browne, and Robertson, lately analysed in this Journal. We would add, indeed, that Dr. Robertson, as would be seen, associates morphia with the Tincture of Digitalis, when it does not effect the expected benefit. But we have long observed that this tincture by itself, except in cases where it is desired to diminish the frequency of epileptic attacks, was far from satisfying us completely, as also all opiates prescribed alone, under whatever form. This combination permits besides the continued use of these two agents, without danger after the phenomena of excitement have given place to calm and docility.

*Hereditary Transmission of Epilepsy.*—M. Achille Foville discusses this question in a careful paper in which, however, he rests his statistical results on too narrow a basis to secure their unhesitating reception. Of most of them, however, there is at present little difference of opinion in our profession. He notes them as follows:—  
1.—Epilepsy is transmissible by heredity. 2.—The proportion of ascendants who have suffered from epilepsy in the families of a given number of epileptics has not yet been calculated in a sufficiently satisfactory manner as to make us exactly informed in regard to it. 3.—The data are as yet much less complete in regard to the proportion of descendants of epileptics who suffer themselves from epilepsy. It is even possible that the causes of uncertainty and error connected



with researches of this nature will make it impossible ever to arrive at a satisfactory result. 4.—In order to approach this result as nearly as possible, and for the study of the other conditions of the hereditary transmission of epilepsy, it would be desirable that we should gather a considerable number of collective observations of families in which epilepsy is hereditary, and affects a more or less large number of persons. These observations ought to embrace several generations, and take exact account not only of the epileptics, but also of the insane, of infants dying at an early age, and of persons who are sane or are presumed to be so. 5.—According to some observations of this kind already collected, we may consider the following ideas as at least probable. *a.* Epileptic parents are in danger of losing a considerable proportion of their children at an early age. *b.* Among the survivors, about a fourth will suffer from epileptic attacks. *c.* Several will be insane. *d.* About a half will be on the brink of such disease. *e.* The further that a generation stands from the parent stem the hereditary influence is gradually enfeebled, and the number of diseased members afflicted by epilepsy or insanity becomes more and more restricted. *f.* Epilepsy has much more tendency to be reproduced in descendants of the same sex as the diseased ascendant than in those of the opposite sex. 6. Although the marriage of epileptics ought not to be proscribed by law, it presents such great inconveniences for the parties themselves, as well as for the issue, that it is to be desired that such unions should be as rare as possible. Physicians ought, therefore, to try to dissuade those who consult them on this point, by making them aware of the dangers to which they expose themselves by marriage.

*Etiology and Pathogeny of "Manie raisonnée."*—Dr. Campagne, Medical Superintendent of the Vaucluse Asylum at Montdevergues, discusses the origin and causes of moral insanity, in an interesting essay which formed part of the treatise rewarded by the *Société médico-psychologique* with the *Prix André*. The conclusions at which he arrives are obtained from the careful consideration of all the circumstances connected with fifteen cases of the disease. Among the circumstances affecting the several individuals, he finds alcoholic excesses in six cases; venereal excess in three; over-exertion of intellect in one; disappointments in four; powerful moral impressions in three; and insufficient food in two cases. These, however, he regards as being in most cases more properly regarded as effects of the moral weakness than causes of it. The real origin he finds in heredity. But hereditary, as has been observed by Lucas (*De l'hérédité naturelle*) "is not *per se* the first principle or origin of anything. It no more initiates predispositions and diseases than it originates the forms, colours, organs, instincts, dispositions, and faculties of beings." How, then, are we to regard it? The vice of constitution is derived from the parents; what is the nature of the vice, and what are the circumstances which regulate its transmission. It is of course im-

possible to present in a few sentences a complete view of the author's argument, but an idea of its nature may be conveyed. Those who are specially interested in the subject will find the original paper well worthy of perusal.

The whole question of hereditary influence is involved in the consideration, and is discussed at considerable length. The author's view is, what is now generally admitted, that in forming our idea of a pathological entity we must have regard not only to the individual person but also to the ascendants and descendants; that the seed sown in one individual may gradually be developed in successive generations of descendants until it arrive at the greatest possible development, or may under other circumstances be gradually blighted and destroyed. The manifestations of vitality exhibited by the pathogenetic cause may differ in succeeding generations in a manner analogous to what we know in the consecutive forms of life among zoophytes. Among physical manifestations of disease it has recently been held that cancer is the ultimate expression of the arthritic principle; and M. Bazin has lately directed the attention of physicians to the pathological unity of certain diseases of the skin which have been hitherto regarded as distinct entities. Looking then at the genealogies of his patients, M. Campagne finds that there is a remarkable similarity in the characters of their ascendants. Not as might at first be supposed that they present many instances of insanity; on the contrary the number of such is unusually small. "The intensity, or the degree of gravity of the mental deficiencies of the relatives of our patients diminishes as the genealogical series is ascended. We have in regard to this only a single proof, but it is clear, patent, and of decisive import. It is that insanity, absent in the third and second (previous) generations appears suddenly with great frequency (nine cases)." This will be best appreciated from the following table:—

Third generation	-	No insanity.
Second generation	-	No insanity.
First generation	-	Nine cases of insanity.
New generation	-	{ Twenty-one cases of insanity. Six cases of chronic diseases of the nervous system. A large number of cases of early death.

The characteristic to which we have alluded as distinguishing the members of the earlier generations, is that of egotism (*égoïsme*); that is to say, a disposition to regard things from a subjective point of view, which may be a slight derangement, but is an unmistakably morbid condition. They also presented, in most cases, other slight indications of deficiency in mental vigour. In attempting to determine the original cause of this egoistic character, the difficulty of

obtaining accurate or full information has prevented the author from arriving at any satisfactory result. But he suggests, as probable, that the neglect of hygienic laws, such as excess at table or otherwise, would sufficiently account for the first deviation from a healthy type. Are we then to believe that egoism in one generation necessarily develops into moral insanity in a future one? Happily there is no reason to hold such a melancholy creed. There is need of the operation of another principle before the further development of the evil can take place. Persons with this egoistic failing may marry others labouring under the same defect; and the process may be repeated in the next generation. In fact, though the author deprecates any accusation of Darwinism, we have the principle of Natural Selection as explained by the celebrated naturalist. The cases which form the basis of M. Campagne's essay go far to support this view. All the facts in comparative physiology which bear on this subject tend to show how strong the tendency is in the progeny to exhibit peculiarities common to both parents, and generally in an exaggerated degree. With regard to the rate at which egoism may thus be developed into moral insanity, the author believes that the natural selection requires a long time and a considerable number of generations. "Our observations, where the series of egoistic types is well marked, justify this opinion, and lead us to think that, in the most favourable conditions, the selection requires at least four or five generations in order to create the pathological species studied in this treatise." The author also draws this comforting deduction: "It is absolutely impossible that a person endowed with a superior character should become morally insane (*maniaque raisonnant*), in whatever conditions he may be placed."

*Pathological Anatomy and Nature of General Paralysis.*—Drs. Poincaré and Henry Bonnet, summarise the results of their investigations in the following propositions:—

1.—"In general paralysis there is sometimes proliferation of the cellular tissue round the vessels; but it never goes so far as to diminish, nor *a fortiori* to occlude completely, the vascular canals. Consequently the functional and material alterations of the true nervous tissue cannot be attributed to a deficient supply of blood. In a word, there is no sclerosis of the encephalon.

2.—"The principal and constant alteration of the encephalon consists in the distortion and fatty degeneration of the cells. There is also found, but less frequently, *a.* globules of free fat in the midst of the granular matter, sometimes isolated, sometimes agglomerated; *b.* masses of granulations of a ferruginous tint not surrounded by a common envelope; *c.* pigment and hæmotosin in the walls of the vessels, and also fatty granules. Sometimes fatty granulations form large agglomerations at the periphery of the vessels. Enormous globules of fat, free or mixed with blood-globules, are often to be seen. The tubes are always intact.

3.—"We have found no modifications in the spinal cord, except a

greater abundance of ferruginous granulations in the cells in the neighbourhood of the ependyma.

4.—“The cells of the whole chain of the great sympathetic are coloured with brown pigment to a degree much more intense than in other subjects, from whatever affection they may have suffered. In the ganglia of the cervical region, and often in the ganglia of the thoracic region, there is evidently a substitution of cellular tissue, and of adipose cells for the nerve cells, which last are comparatively rare. Everything leads us to think that this is the anatomical starting point of the affection, and that the alterations of the encephalon are the mere consequences of the disorders, which this sclerosis, by a paralytic action of the cervical ganglia, produces in the cerebral circulation. There is always a very marked pigmentation of the spinal ganglia, and of those which are attached to the cranial nerves. The adipose cells, which are substituted for nerve cells in the ganglia of the great sympathetic, often exhibit a depth of colour, which may even be quite black.

5.—“All the alterations which we have described, produce disorders of nutrition in most of the organs—disorders which often end in fatty degeneration, or other modification of their elements, and which are manifested physiologically at first by ataxy, and subsequently by enfeeblement of all the functions, both of relational and vegetative life.”

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